discharge cycling.

As can also be seen from comparison of the battery A in accordance with the present invention to the comparative batteries Y6 and Y7, the combination of $LiMn_{1.95}Al_{0.05}O_4$ with

5　$LiNi_{0.6}Co_{0.3}Mn_{0.1}O_2$ results not only in marked improvements of the 1C and 0.2C capacity retentions but also in the marked reduction of a difference between the 1C and 0.2C capacity retentions that suppresses load characteristic deterioration with cycling. This is considered due to the incorporation

10　of a dissimilar element in each of the lithium-manganese complex oxide and lithium-nickel-cobalt complex oxide, in the form of a solid solution, that caused a change in electronic state of the active material comprising the first and and second oxides, in such a way to increase electronic

15　conductivity of its entirety, and also caused a change in its expansion-shrinkage behavior with charge-discharge cycling in such a way to maintain stable contact between particles of the first and second oxides during charge-discharge cycles.

20　Also from comparison of the comparative batteries Y1 to Y2 and Y5, it has been found that the 1C and 0.2C capacity retentions can be both improved when the first oxide in the form of $LiMn_{1.95}Al_{0.05}O_4$ is combined with the third oxide in the form of mixed with $LiCo_{0.9}Mg_{0.1}O_2$ than when they are used alone

25　in the positive electrode. This is because the third oxide

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is more electronically conductive than the first oxide and an electronic state of the active material in its entirety is caused to change when combined to further improve the electronic conductivity.

As can also be seen from comparison of the comparative batteries Y6 and Y7 to Y8 and Y9, further incorporation of $LiCo_{0.9}Mg_{0.1}O_2$ in the mixture of $LiMn_2O_4$ and $LiNi_{0.6}Co_{0.3}Mn_{0.1}O_2$ or the mixture of $LiMn_{1.95}Al_{0.05}O_4$ and $LiNi_{0.8}Co_{0.2}O_2$ results not only in marked improvements of the 1C and 0.2C capacity retentions but also in the marked reduction of a difference between the 1C and 0.2C capacity retentions that suppresses deterioration of load characteristics with cycling. These are considered to result for the same reason stated earlier.

As can also be seen from comparison of the battery D in accordance with the present invention to the comparative batteries Y8 and Y9, the combination of $LiMn_{1.95}Al_{0.05}O_4$, $LiNi_{0.6}Co_{0.3}Mn_{0.1}O_2$ and $LiCo_{0.9}Mg_{0.1}O_2$ in the positive electrode results not only in improvements of the 1C and 0.2C capacity retentions but also in the marked reduction of a difference between the 1C and 0.2C capacity retentions that suppresses deterioration of load characteristic with cycling. This is considered due to the addition of the third oxide having high electronic conductivity to the active material comprising the first and second oxides with improved electronic conductivities that caused a further change in

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electonic state of the active material in its entirety.

In the above examples, the oxide represented by the compositional formula $LiMn_{1.95}Al_{0.05}O_4$ was used for the first oxide incorporating a dissimilar element in the form of a solid solution. It has been also proved that the same effect can be obtained with the use of a lithium-manganese complex oxide represented by the compositional formula $Li_xMn_{2-y}M1_yO_{4+z}$ (where, M1 is at least one element selected from the group consisting of Al, Co, Ni, Mg and Fe, $0 \leqq x \leqq 1.2$, $0 < y \leqq 0.1$ and $-0.2 \leqq z \leqq 0.2$).

Also in the above examples, the oxide represented by the compositional formula $LiNi_{0.6}Co_{0.3}Mn_{0.1}O_2$ was used for the lithium-nickel-cobalt complex oxide (second oxide) that incorporated a dissimilar element in the form of a solid solution. It has been also proved that the same effect can be obtained with the use of a lithium-nickel-cobalt complex oxide represented by the compositional formula $Li_aM2_bNi_cCo_dO_2$ (where, M2 is at least one element selected from the group consisting of Al, Mn, Mg and Ti, $0 < a < 1.3$, $0.02 \leqq b \leqq 0.3$, $0.02 \leqq d/(c + d) \leqq 0.9$ and $b + c + d = 1$).

Also in the above examples, the oxide represented by the compositional formula $LiCo_{0.9}Mg_{0.1}O_2$ was used for the lithium-cobalt complex oxide (third oxide). It has been also proved that the same effect can be obtained with the use of a lithium-cobalt complex oxide represented by the

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